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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,451	11/28/2001	Adam T. Lake	10559-046002/P7405	3882

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SAN DIEGO, CA 92130-2081

EXAMINER

LEHNER, WILLIAM P

ART UNIT	PAPER NUMBER
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2671

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DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,451

Applicant(s)

LAKE ET AL.

Examiner

William P Lehner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/7/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-11, 19-22 and 29-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-11, 19-22, 29-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date g.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's arguments, see page 10 Remarks, filed 11/28/01, with respect to all pending claims have been fully considered and are persuasive. The rejection of 12/5/03 has been withdrawn.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a 3D model 10, interconnecting polygons 11, arm band 14, belt 15, eyepoint vector 36, normal vector 37 from FIGs 1 and 2 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because FIG 10 shows a silhouette edge 65 between endpoints 62 and 64. The normal 66 to the silhouette edge 65 is drawn to be the same line on the same plane as edge 65. This cannot be, a normal must be perpendicular. Additionally, the texture map 71 is shown to be on the same plane as edge 65 as it is drawn containing points 62 and 64 and edge 65. Further, the width vector 69 should be drawn horizontally and the height vector 66 should be drawn vertically so that it is easier to understand. A proposed drawing correction or corrected drawings containing all the elements of FIG 10 and possibly markings to denote which angles are or are perpendicular is required in reply to the Office action to avoid

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abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8-11, 19-22, 29-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed limitation from claims 8, 19, and 29 "Determining a sized of a texture map area based on an eyepoint vector to the silhouette edge, the texture map area having a width and a height, the size of the texture map area being determined so that the width is orthogonal to the eyepoint vector and to the height..." is not enabled. It is unclear how the size of the texture map is determined based on an eyepoint vector.

6. Page 8, line 22 – page 9, line 7 describes sizing a texture map area by computing a cross product between height vector 66 and eyepoint vector 67. The height vector 66 is a normal to the silhouette edge. However, it is not known what the magnitude is of the normal height vector 66, so one is unable to compute a cross product. Both vectors in a cross product must have a direction and a magnitude. The

magnitude of vector 66 is not the distance between endpoints 62 and 64, because vector 66 is normal to this edge 65. Additionally, the specification does not explain how the "size of a texture map" is determined as it is currently claimed.

7. Page 9, lines 15-18 says that the size of the texture map may be preset, or controlled by a person, and not dictated by the magnitude of width vector 69. This is contradictory to the preceding paragraph (page 8, line 22- page 9, line 7) and all pending claims.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 10, 21, 30, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10, 21, and 30 recite The method of claim 8, wherein the size of the texture map area is determined by: constructing a normal vector relative to the silhouette edge; determining a cross product of the normal vector and the eyepoint vector to determine a direction of the width of the texture map area; and defining the texture map area based on points that are positioned relative to end points of the silhouette edge along the direction of the width.

10. The eyepoint vector is orthogonal/normal to the texture map. It appears from FIG 10 that the silhouette edge 65 is on the same plane as the texture map, so the normal to the edge 65 is in the same as the normal to the texture map. Claim 10's cross product

between the normal to edge 65 and eyepoint vector orthogonal to the texture map would be meaningless because these vectors are in the same direction. The cross product between identical vectors is 0. Therefore, the claim limitation, as recited, does not make sense as it would appear to always create a result of 0.

Claim 31 is rejected because it is dependant on claim 30.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P Lehner whose telephone number is 703-305-0682. The examiner can normally be reached on 8:30 - 5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 703-305-9798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JOSEPH MANCUSO  
PRIMARY EXAMINER